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**University of Alberta**

Factors in Paramedic Competency

By

Timothy Don Essington



A thesis submitted to the Faculty of Graduate Studies and Research in partial  
fulfillment of the requirements for the degree of Master of Education

In

Adult and Higher Education

Department of Education Policy Studies

Edmonton, Alberta

Fall 2001



**University of Alberta**

**Faculty of Graduate Studies and Research**

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled Factors in Paramedic Competency submitted by Timothy Don Essington in partial fulfillment of the requirements for the degree of Master of Education in Adult and Higher Education.



This work is dedicated to....

My beautiful and loving wife Christine who is the smartest person I know...

My daughter Savannah who at six months kept trying to eat my textbooks...

My daughter Autumn who always gives me a hug, even when I am grumpy...

My son Trent who is trying to teach me patience....

My parents who coerced me into going to University...

Uncle Pooch who encouraged me to be a teacher by teaching me about frogs...

Thank-you for your patience and love.



## **ABSTRACT**

Using case study analysis, this research identified factors relevant to the maintenance of competency in Alberta Emergency Medical Responders, Emergency Medical Technicians, and Emergency Medical Technologist Paramedics. Conduct and Competency Hearings conducted by the Alberta College of Paramedics were examined from 1990 to 1999.

The results of this study are relevant to prehospital care practitioners, policy makers, educational providers, emergency medical service providers, and the public. They indicate that there are several factors that influence the competency of ambulance attendants in Alberta. These factors can be grouped into individual, situational, and socio-political categories. Individual based factors were found to be most relevant. A key finding is that the affective domain is very important with respect to ensuring continuing competency in ambulance attendants. This was found to be particularly true for Emergency Medical Technologist Paramedics.



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## CHAPTER ONE

### The Context of the Problem

#### The Background

In North America, formal education and training of ambulance attendants have only been in existence for about thirty years. The paramedic movement really began with the advent of Cardiopulmonary Resuscitation (CPR) in the late 1950's and the recognized need to deliver CPR to the community. Prehospital cardiac care was initially established in Belfast, Northern Ireland, in 1966 where for the first time an attempt was made to take the coronary care unit into the community and treat the early complications of acute myocardial infarction (Eisenberg, Pantridge, Cobb, & Geddes, 1996). Within a few years the idea had spread to the United States where specially trained personnel began staffing ambulances in Miami, Seattle, Los Angeles, and Portland. By the early seventies prehospital cardiac care was taking place in both Edmonton and Calgary, Alberta. By the mid-seventies provincial governments in Canada began to struggle with legislation, which would regulate the new profession of prehospital care. Alberta took the lead in Canada with the formation of the Health Disciplines Act on Dec 16, 1981. Then on December 31, 1984, the Emergency Medical Technician Regulation was established within the framework of the Health Disciplines Act thereby legally establishing the scope of practice for a paramedic in Alberta for the first time.



## The Alberta Struggle

On January 1, 1989, the Alberta Government Health Disciplines Board decided the time was right and turned control of registration and competency for paramedicine over to the newly created Alberta Prehospital Profession's Association (APPA). On April 1, 2000, the Alberta government changed the name of APPA to the Alberta College of Paramedics (ACP). Since 1989, first APPA and now ACP have continually struggled with the process of how to best fulfill the professional obligation of ensuring the continuing competency of the membership. As of the time of this writing, Alberta remains the only province in Canada whose paramedics have a self-governing Provincial College contained within provincial legislation.

Traditionally, post-secondary education has been fixed time and variable achievement. Most programs whether they result in a certificate, diploma, or degree rely on a specific period of time to accomplish a set of measurable and non-measurable results. There are many benefits to a fixed time frame model. Harmonization of educational resources, ease of formative evaluation, set regulation of program structure and organization are but a few. Unfortunately the model does not always lend itself well to adult education where fixed achievement in a variable amount of time is the common expectation. From an organizational context, employers, corporations, professional organizations, and public boards are concerned with the competency of the individual and not with the length of time it takes to achieve that competency. This can put industry and government at odds with



educational institutions as they both struggle to ensure adequate training and education. Meanwhile, industry, professional associations, and educational institutes all struggle with continuing education, the maintenance of competency, and the evaluation of competency.

In Alberta the struggle has begun afresh. The Alberta Health Disciplines Act is in the process of being replaced by the Health Professions Act. During the phase in period of the new legislation, the Alberta government is assisting all of the health professions in the development of competency profiles that will be used to define their respective professions. By 2005, each profession will be expected to track practitioner skill utilization and have established a mechanism by which competency can be maintained. Key to this legislation is the underlying idea that individuals competent in a skill in one profession should be competent to perform the same skill in another profession. Implications for both individuals and professions are immense. In the past, paramedics who wished to become nurses had to enroll in an appropriate program, and start from scratch. The Health Profession's Act infers advance credit should be given. Education and training institutes are already under heavy pressure to avoid needless duplication of the educational experience. Inherent in the professional transfer of competency is the underlying requirement to ensure competency is maintained. The new Health Profession's Act will make this more than just a professional responsibility. The government will have to oversee, at least in principal, that valid



methodologies are used to ensure that professions maintain the competencies specific to their fields.

The requirement that a profession ensures competency in its members can be a troublesome one. The Alberta College of Paramedics/APPA has struggled for at least the last five years to come up with a methodology suitable both to its members and the public. Since formation in 1989, it has relied on its registration committee to set the criteria for maintaining competency as mandated by the Health Discipline's Act. Until recently the criteria for EMT-Ps has been to hold a current Advanced Cardiac Life Support certification, complete at least three continuing education modules requiring about 1-2 hours of self-study per module per year, and work for an ambulance operator for 480 hours over a two-year period. Within the last four years, this system has come under heavy fire both from the membership of ACP/APPA and the government.

The obvious problem is "What exactly should the 480 hours refer to?" Should it be based on time spent in the ambulance hall, or should it be patient contact time? If it is to refer to patient contact time, many attendants in rural areas do not experience 480 hours of contact time in two years. Discussions revolving around questions such as these led ACP/APPA on a mission to reform their competency model. In 1996, ACP/APPA developed a new model requiring 120 patient contact or training hours per year. It immediately came under heavy criticism. Whereas in the past educators had been exempt from the hour requirement, they now complained that the training component would



be difficult to monitor and might subject them to a loss of certification if they failed to attain a prescribed number of patient contact hours. Administrators and managers worried about how the model would apply to them. And municipalities and fire departments balked at the additional cost they were bound to incur for training of part time attendants whose primary job was something other than ambulance calls. Specifying a formerly ambiguous number of hours was proving to be impossible. At the 1997 APPA Annual General Meeting, the new model was officially thrown out leaving the professional association once again looking for a model to fill the competency vacuum.

In late 1999, ACP/APPA and the Alberta government jointly struck a working committee of practitioners in order to form a competency profile, which could be used as a basis for establishing and tracking practitioner competency. After completion in 2001, this profile will be used as one of the tools upon which a system of competency tracking will be based.

The drive by ACP to understand and deal with the issue of competency and the maintenance of competence is still ongoing. The Alberta government has informed ACP that the Health Professions Act will require a detailed and comprehensive model of ensuring continuing competency in its members. Furthermore, it is clear that while the cost of implementing this model will in part be borne by the provincial government, operating costs will be carried by the professional membership. There is, therefore, strong financial incentive by all parties to try and do it correctly the first time. One task in the



implementation phase of any model that attempts to track competency will be to identify the factors influencing the maintenance of competency.

## **Conceptualizing the Problem**

### **Research Question**

What are the factors that need to be considered in maintaining competency in Alberta College of Paramedics registered members?

### **Significance of the Study**

It is clear that the professional requirements of ACP dictate that it will have to develop a methodology and/or model for ensuring continuing competency in prehospital care. It is equally clear that any model must be built upon established research. If the factors relating to the maintenance of competency in ACP members can be identified, and their relationship to ensuring competency established, then valuable information will exist upon which a future model might be established. Furthermore, this research will benefit other professions whose desire or need is to establish models for continuing competency.



## **Definition of Terms**

### **Alberta College of Paramedics (ACP)**

ACP is the professional association in Alberta charged via the Health Discipline's Act and Health Professions Act with maintaining registration, continuing education, and competency for prehospital care providers in Alberta. Previous to April 2000, ACP was known as the Alberta Prehospital Professions Association (APPA). All by-laws and regulations remained unaffected by the transition of APPA to ACP.

### **Alberta Prehospital Professions Association (APPA)**

This is the name, previous to April 2000, of the professional association in Alberta charged via the Health Discipline's Act with maintaining registration, continuing education, and competency for prehospital care providers in Alberta. The association was started January 1, 1989. It is now called the Alberta College of Paramedics (ACP).

### **Ambulance Attendants**

Ambulance Attendants in Alberta refers to Emergency Medical Responders, Emergency Medical Technicians, and Emergency Medical Technologist-Paramedics.

### **Case**

A case is a particular instance of a phenomenon being studied. In this study the case is defined by all of the documentation received from the participant (ACP/APPA) as it relates to competency hearings and the maintenance of competency.



### Category

A concept that is inferred from the study that is used to group together behaviours within the case for the purposes of analysis and evaluation.

### Competency

A competency is the human ability to do a unit of work as compared to a standard.

### Emergency Medical Responder (EMR)

An EMR is the lowest level of ambulance attendant who has taken an approximately 120 hour course with no clinical component. This is a protected title in Alberta.

### Emergency Medical Technician (EMT)

In Alberta, Emergency Medical Technicians (until recently) used to be called Emergency Medical Technician – Ambulance (EMT-A). The title of EMT-A is no longer in common use. EMT is the intermediate level of ambulance attendant in Alberta. The EMT course is about 20 weeks if taken in a classroom setting. Both didactic and clinical components are included. EMT is a protected title in Alberta.

### Emergency Medical Technologist-Paramedic (EMT-P)

Commonly called paramedics in Alberta, Emergency Medical Technologist-Paramedic is the highest level of ambulance attendant. Unfortunately, the term "paramedic" is a confusing one. The Paramedic Association of Canada (PAC) considers any individual, regardless of training, who is a registered member of PAC, and who works on an ambulance, to be a



paramedic. In Alberta, all ambulance attendants are both members of PAC and ACP. However the term "paramedic" is a protected title in the Health Discipline's Act, and in Alberta is exclusively used to denote the highest level of ambulance attendant (EMT-P). When this study uses the term paramedic, it refers to it with the national standard in mind. It, therefore, includes lower levels of ambulance attendants such as Emergency Medical Responders and Emergency Medical Technicians.

### Health Disciplines Act

This is the Alberta legislation that governs various allied health professions including ambulance attendants.

### Intubation

Intubation is an airway management skill where a tube is manually inserted through the vocal cords into the trachea to facilitate airway control and allow ventilations either through a ventilator or a bagging device.

### Paramedic Association of Canada (PAC)

PAC is an association composed of prehospital care practitioners across Canada. All ACP members belong to this association. PAC has no legislative basis and works primarily upon methods of mutual consensus. A primary goal of the association is the attainment of national reciprocity among practitioners.

### Prehospital Care

A technology defined in the Alberta Health Disciplines Act that relates to the regulation of ambulance attendants. In Alberta there are three levels:



Emergency Medical Responder, Emergency Medical Technician, and Emergency Medical Technologist Paramedic.

### Protected Title

This is a legislated designation that can only be used by an individual if that individual is registered in particular technology. For example, in Alberta only a registered EMT-P can call herself a paramedic.

### Provincial Registration Examination

This is the written and practical examination in Alberta that must be passed in order to become registered in a technology such as prehospital care.

### Registration

Registration is the process whereby the professional association grants permission within existing legislation to practice in the technology.

### Registration Number

The registration number provides proof to the public, government, and employer that a practitioner is registered.

### Scope of Practice

This is the total number of medically related procedures a practitioner can perform. It includes things like intravenous access, cardiac monitoring, traction splinting, intraosseous infusion and many others.

### Skill

In this study a skill is defined as the human ability to do work.



## Task

For the purpose of this study, a task is defined as a unit of work.

## Unit of Analysis

Unit of Analysis refers to an aspect of the case that can be sampled. In this study it refers to 53 individual ACP/APPA competency hearings that were documented from 1989 to 1999 and available to the researcher.



## CHAPTER TWO

### Review of Related Literature

#### The Meaning of Competence and Competency

The term competence has been around for a long time, yet it is only in the last twenty-five years that serious attention has been given to defining it. The competence-based movement originated as a response to the debates occurring nearly a century ago over the future of high school (Grant, 1979). In the 1880s only about 1% of the eligible American high school population attended high school, whereas 50 years later, 47% attended (Grant, p. 7). In recent decades, college and university enrollment has paralleled this change. The discussions surrounding competence now involve the adequacy of higher education to absorb and educate increasing numbers of students who come from increasingly varied backgrounds (Grant p.7). Within this trend, continuing education, adult training, and the maintenance of professional competency are assuming rising importance (Ellis & Gorringe, 1989). Consequently the education and training system will have to pay more attention to the needs of adults. As Knowles (1984) points out in his Andragogical Model of learning, the education of adults is fundamentally different than that of children. Furthermore, it is clear that adults are becoming less tolerant of educational regimes that process them through rigid programs without recognition of the prior competencies they have attained through work experience and previous education (Ellis & Gorringe).



Attempts at crediting students with self-acquired competency are fraught with difficulty and challenge (Holtzclaw, 1984). Many students face a difficult task in extracting learning from experience, and all institutions grapple with the challenge of conducting assessments for prior competence. In the last decade this endeavor has forced educators to come to grips with the meaning of competence and competency. "Is a professional's competence in practice a stable, enduring trait or a variable that changes with time, practice setting, client or patient characteristics or phase of service or treatment" (McGaghie, 1979, p. 241)? Brady (1995, p.11) points out that "We have to decide whether a competent person is one who does perform certain tasks in a certain (pre-determined) way or a person who has the ability and willingness to perform those tasks as and when necessary". In other words, is competence a series of predefined steps limiting it to the psychomotor domain, or does it extend to attitude and judgment of application? Smith (1996) certainly appears to agree with the latter when she states

Competency includes performing at an acceptable level of technical skill; organising one's tasks; responding and then reacting appropriately when things go wrong; fulfilling a role that is integrated into the work of the organisation and the transferring of knowledge to new situations (p.195).

Deane and Manuel (1977) demonstrated through their Competency Analysis Profile System that competencies in a training curriculum should contain learning objectives from all three learning domains: cognitive, affective, and psychomotor.



Unfortunately, competencies in a curriculum do not necessarily correlate with the evaluation of individual competency. Johnson (1995, p. 20) states, "...there should be no comparison between one person and the next, as competence is defined as the ability to meet the performance standards consolidated by the performance criteria". The former part of the statement speaks to the idea that individuals are either competent or incompetent in a skill or a profession with no sub-categories in between. This idea has come under heavy fire from many involved in continuing adult education. McGaghie (1993) speaks of competence evaluation in terms of immediate, intermediate and ultimate criteria. Immediate criteria are bits of knowledge and skill required to reach a short term goal. Intermediate criteria would include the ability to complete a program of study, interact with clients or patients, and preserve confidentiality. Ultimate criteria refer to value judgments about technical skill, professional manner, and lifestyle. The latter part of Johnson's statement speaks to the movement away from norm-referenced evaluation to criterion-referenced standards. Here Johnson receives heavy support from the literature. "To achieve an egalitarian goal without sacrificing standards, competence-based education employs 'criterion-referenced' rather than 'norm-referenced' assessment" (Grant & Kohli, 1979, p. 141). Smith (1996) states "evaluation can be made largely on the basis of professional educational standards" (p.197).



## Reasons for Recredentialing Professions

There is increasing public awareness that licensure of a professional in a profession does not guarantee competence in skills and knowledge throughout a career (Dunn & Hamilton 1985; Norcini & Shea, 1993; Snyder, 1997). In response to the question of why we think those in a profession need their performances improved, Dunn and Hamilton bluntly state, "...any profession is a multi-faceted activity and it is naïve to expect someone to have the same level of competence in all aspects of it" (p.279). Norcini and Shea (p.78) point out that there is pressure on many professions to recertify their membership. They have identified this pressure as arising from (1) expansion of knowledge that forms the basis of the profession, (2) changes in the culture of the profession, and (3) higher expectations from the individuals (patients, clients, students, etc.) to whom the professionals provide the service. They further point out that it is the expansion of knowledge that is the primary driving force.

Unfortunately the literature contains a paucity of published information on the competence and competency of ambulance attendants. That which is published relates more to speculation than research and is usually concerned only with the performance of a single psychomotor skill like intubation. Consequently, information published on the competency of other professions must be relied upon. With respect to this there is considerable literature available for the professions of law and medicine.



Bushman (1979, p.55) lists four factors that contribute to the incompetence of lawyers.

- (1) Part of the knowledge and skill which lawyers attained in law school has been lost or forgotten.
- (2) Some of the knowledge and skill that they graduated with is now obsolete.
- (3) Clients are demanding new services that require different skill sets than were formerly taught at law school.
- (4) New information, skills, and attitudes have emerged to become part of the new standards of practice.

For some professions, like medicine, litigation has played a role in forcing the issue. In reference to Governor Mario Cuomo's 1986 public recommendation for periodic physician recredentialing in the state of New York, Gellhorn (1991, p. 752) has stated "...with greater understanding by the public of physician recredentialing and the reassurance this would provide, it could be an important factor in acceptance of medical malpractice tort reform". Similarly some professional liability companies in the United States offer premium discounts to dentists who have successfully completed structured continuing education programs presumably because they are at a lower risk of being incompetent (Low & Kalkwarf, 1996).

### **Competence and Continuing Education**

Professional commitment to competence is also a commitment to constant updating of knowledge and skills (Dunn & Hamilton, 1985; Houle, 1980). Fortunately, there is a great deal of evidence in the literature that



indicates that most professions do embrace the importance of lifelong education (Cervero, 1988). However, the correlation between specific aspects of continuing education and the maintenance of continuing competency are not always clear. In 1979, Raihall pointed out

It is important to draw a distinction between recertification and continuing education. Recertification should include consideration of education, ethics, and experience, the same three factors considered in initial certification. Continuing education, however, only considers the education need and often does not attempt to measure competency, but merely tries to keep practitioners current in their knowledge. Thus, requiring continuing education in order to maintain membership in a professional society or association should not be equated with recertification. Both serve very important, but different, objectives (p. 84).

Today the distinction is no longer clear. Successful continuing education within professions is expected to positively impact competency (Tovey, 1994; Organisation for economic Co-operation and Development, 1995). Queeney (1995) states that "If an educational activity is not sufficiently intensive to have a marked impact on participants' knowledge, skills, or performance abilities, an evaluation of its effectiveness is probably not worthwhile" (p.222).

The new linkage of competency with continuing education makes it clear that what was once considered adequate continuing education no longer holds true. The professional newsletter is one aspect that has been heavily criticized. In fact, professional bulletins outlining new practice parameters are not sufficient to generate improvements to practice unless they are linked to other incentives (Lomas et al., 1989). Similarly it is now



widely recognized that without formal reinforcement and feedback continuing medical education courses do not produce improved physician performance or competence (Davis et al., 1990). In the field of law, Bushman (1979, p.67) notes “Attendance at a program is not probative evidence of incremental competence, because CLE [continuing legal education] is a means to competence not its measure”. Within the profession of dentistry it is now purported that “...continuing dental education programs...need to provide pre-testing and post-testing to ensure that the educational program had been effective in the transfer of knowledge and skills” (Low and Kalkwarf, 1996). Most certainly, the exclusive and solitary use of journals, textbooks, and reports are insufficient for continuing professional education (Dunn & Hamilton, 1985).

### **Obsolescence in Competency**

Incompetence is more than just a lack of knowledge or the possession of some rusty skills. It involves beliefs, attitudes, habits, and character traits (Bushman, 1979). Knox (In Bushman, 1979) points out that continuing legal education is only one of seven factors that relates to the competency of a lawyer. Below is a paraphrase of these factors.

- 1) *Selection criteria* – This includes the process by which the individual came to choose law as a profession and the professionally imposed selection criteria of the educational institute.
- 2) *Preparatory Education* – The influence of educators always has a strong influence on ethics and attitudes.



- 3) *Entrance requirements* – The Bar examination and character review is a factor.
- 4) *Continuing Legal Education* – This may be a powerful or weak factor.
- 5) *The Work Environment* – This involves the relationship of work experience to competence and may be the most important factor.
- 6) *Lawyer's proficiency* – This is the basic capacity to perform competently.
- 7) *Lawyer's performance* – The actual services rendered to a client may be poor (despite excellence in all other areas) if personal problems, greed, laziness, and others come into play.

Knox (1979) states that evidence of obsolescence includes inability to perform according to standard best practice, and lack of advice seeking from peers. He divides the factors influencing obsolescence into individual and situational factors.

#### Individual Factors

- 1) An incompetent practitioner may be one who through lack of training or education may never have been competent.
- 2) The currently obsolete practitioner may have acquired an adequate knowledge base during the preparatory education but may never have acquired the experience to become proficient.
- 3) The professional may have forgotten critical information that was previously learned.



- 4) Occupational shifts within the profession such as might occur when a field worker is promoted to management may contribute to obsolescence.
- 5) Some areas of proficiency may not be maintained due to lack of practice, especially when this involves extended work time in subprofessional tasks.
- 6) Ethical aspects of practice may affect individual proficiency. In this case greed may cause practitioners to unethically recommend excess services to clients even though the quality of the service may be excellent.
- 7) For a variety of reasons professionals may not seek the interaction or advice of their peers when it is appropriate to do so.
- 8) The individual may choose not to make the effort to improve their individual proficiency, and so fall behind the profession as a whole.
- 9) Professionals may lack an achievement motive.
- 10) Individual problem solving ability may be insufficient to merge innovation and creativity with action.

#### Situational Factors

- 1) The professional field may expand faster than the individual can expand a set of skills to deal with it.
- 2) Client expectations may shift.



- 3) The concept of what is considered “best practice” may change.

Proficiency accepted a decade ago might no longer be considered proficient.
- 4) Societal obligations may contribute to obsolescence. A reduction in teacher preparatory and professional development time due to government funding cutbacks is one example.
- 5) Influences of related fields might heighten competition between professions resulting in redefinition of roles and competence.
- 6) The type of encouragement the profession as a whole provides for the individual to maintain competency is a factor.
- 7) Organization of the individual employer may increase or decrease the maintenance of competency.
- 8) Work enrichment activities that attempt to design the work in a manner that enhances job satisfaction, motivation, and performance contribute to competence.
- 9) Staff and organization development provided by employers will affect the maintenance of competency.
- 10) Access to counseling and career planning also will affect the maintenance of competence.



## Expertise and Competence

The terms competent and expert are not synonymous. Common usage of the term, expert, suggests mastery in a specific domain. Domain, as it is referred to here, is not confined to a single task (unit of work). Rather it is composed of a series of tasks and task sets. These task sets are considered competencies when they are compared to an established standard (Manuel & Deane, 1976). This standard is either set by government, a professional association or “common standards” of practice. Experts have mastered the ability to perform the competencies that define their field of work. Typically a field of work can be defined by less than nine core competencies (Manuel and Deane). But just because someone is competent in a field, it does not necessarily follow that he or she is an expert. Johnson (1995) has stated that individuals are either competent or they are not. Eraut (1994, p.118) points out that gradations in levels of competence such as “just competent” or “highly competent” are not recognized for accreditation purposes. The entire spectrum of the competence-based education movement has been criticized for teaching and evaluating to a minimum standard (Grant et al., 1979). Expertise involves more than a bare minimum, and comparison of an expert to a standard is at best obscure.

Benner (1984), who is a much-cited source in the nursing literature, clearly delineates between the competent practitioner and the expert practitioner. She has applied the Dreyfus & Dreyfus Model of Skill Acquisition (later published in 1986) and its five phases of progression (novice, advanced



beginner, competent, proficient, and expert) to the nursing profession. In this application, novices have no experience in the situations where they are expected to perform. They must be given broad rules to serve as guidelines, and typically, they attempt to slot every possible situation into some preconceived category. The rule-governed behaviour of the novice is extremely inflexible and limited. In fact, it works against successful completion of tasks because the rules can rarely deal with context specific situations. The advanced beginner demonstrates marginally acceptable performance. This individual has acquired the experience to begin the assimilation of what Benner (p. 22) calls “aspects of the situation”. Benner notes that at this level it is sometimes sufficient to have these aspects pointed out by a mentor to provide a broader basis of experience. Competent individuals are grounded enough in “situation aspects” that they can be considered capable of adequately dealing with the majority of the difficulties that they will be expected to encounter. Competent practitioners are capable of conscious, abstract, analytic contemplation of the problem. In contrast proficient individuals think holistically rather than situationally. Their performance is guided by maxims, which are cryptic instructions that only make sense in view of significant cognitive knowledge and experience in the situation. Perception is the key with proficiency. The situational perspective is not “thought out” but “presents itself” based on experience and recent events. Experts do not rely on analytical principles whether they are algorithms, rules, guidelines, or maxims. Drawing upon a wealth of experience, experts are able to “intuitively”



grasp the situation without wasting time in the consideration of inferior alternative solutions.

Out of the model come many implications for teaching and education. Since all experts start out as novices, declarative knowledge must precede procedural knowledge. Mentorship appears most valuable in the early stages of the progression when “tips and pointers” are needed to fill the void of experience. Novices need guidelines to direct their initial behaviour, but it should be made clear that such guidelines are not written in stone. Similarly novices and advance beginners need help in setting priorities especially in the clinical setting. Nurses at the competent stage benefit from decision-making games, simulations and other activities involving situated cognition. This helps them to achieve efficiency and organization. Individuals not yet at the competent stage are unable to prioritize and organize well enough to make scenarios a valuable learning tool. Benner believes learners at the proficient level are best taught by the use of case studies where their ability to reason, analyze and interpret is challenged in a directed but real life way. At this level, teaching non-context specific rules seems of little use and is more likely to evoke rejection and stimulate examples where the rule would be invalid. Expert practitioners benefit from systematically recording and describing critical events from their practice that illustrate either expertise or a breakdown in performance. Reflection here is the key.

The most important educational implication of Benner’s model appears to be that programs must promote the development of practical knowledge



and the attainment of experience. In this, Benner lists six types of practical knowledge which are attained as an individual moves through the five stage sequence: (1) graded qualitative distinctions, (2) common meanings, (3) assumptions, expectations, and sets, (4) paradigm cases and personal knowledge, (5) maxims, and (6) unplanned practices. Graded qualitative distinctions, when applied to nursing, would include noticing and reacting to the subtle changes that occur in a patient's condition during developing pathophysiologies. It would include reaction to small changes in patient condition that to the non-experienced provider would seem trivial but to the more proficient caregiver reveal that something greater is going on. This can only be accomplished at the proficient or expert levels. Nurses often draw meanings from the common issues they encounter in their profession and consequently evolve expectations that determine how clinical situations should be perceived and acted upon. Paradigm cases are those experiences that are very powerful and stand out in memory. They allow nurses to compare past "whole" situations with current "whole" situations. Maxims would include detailed nursing notes, documentation and concise verbal reports that make sense only in the context of experience. Unplanned practices are unintentional and often routine roles, which are not formally recognized.

From Benner's work, it is clear that the different levels reflect changes in three general areas of skilled performance. There is a movement away from reliance on abstract principles to the use of past concrete experience. Secondly, there is a change in the learner's perception of the situation where



“what is going on” is seen less and less as a compilation of bits and pieces and more as a complete whole with relevancy dependent on certain specific parts. Thirdly, the practitioner moves from being a detached observer to an informed performer.

The Dreyfus and Dreyfus Model of Skill Acquisition (1986) and Benner’s application of it have not been without criticism. Eraut (1994) points out that it leaves two important questions unanswered. How serious is the problem of expert fallibility, and what proportion of work does it cover? Also, though the model emphasizes intuition rather than reasoning as the major ingredient of expertise, it offers no explanation of how learning from experience occurs in practice.

Nevertheless, Sylvia Scribner’s (1986) “Milk Factory Studies” serves as powerful corroborating evidence for Brenner’s work. Scribner studied novice/expert distinctions to develop a model of practical thinking. She found that novices tend to rely on algorithms that applied a generalized approach to a wide variety of problems. Experts displayed a repertoire of solution modes fitted to specific problems in task specific environments. Experts also exhibited an economy of effort that novices did not have. Experts could reduce the number of physical and mental steps required for problem solving. From an examination of several studies on expertise, Tennant and Pogson (1995) state “superior memory of the experts was clearly specific to the domain that was meaningful to them...”(1995, p.50). Scribner also found that there was a close correlation between expert performance and setting specific



knowledge. And like Benner, she found that experts finding themselves in situations in which they lacked experience could act like novices. Finally Scribner found that as practical thinking improved, the ability to redefine or reformulate problems also improved.

Schon (1987) believes that while professionals have enormous technical knowledge (called technical rationality) that allows them to perform in their respective fields, this does not distinguish the adequate practitioner from the expert. While technical rationality may differentiate competent from incompetent practitioners, “professional artistry” accounts for expertise. In other words, there is importance in the way practitioners handle “indeterminate” zones of practice. Schon has identified two forms of knowledge in professional artistry: knowing-in-action and reflecting-in-action.

Knowing-in-action has three properties. It involves the knowledge to carry out actions without thinking about them prior to or during performance, yet there is no awareness of having learned these things. A description by the working practitioner of the knowledge required to complete the task is difficult. Schon (1987) points out that most of the spontaneous actions that professionals take do not stem from a rule or plan that was in the mind before acting. Professionals constantly make decisions and judgments but cannot state the rules upon which they were based.

However, Schon believes it is possible for the practitioner reflecting on this tacit knowledge to construct descriptions and new versions of reality. The ability to do this is reflecting-in-action. Professionals reflect in the midst of



action, without interruption. Their thinking reshapes as they are doing. As Cervero (1988) states “the goal of reflection-in-action is to change indeterminate situations into determinate ones, and the key to successfully completing this problem-setting activity is to bring past experience to bear on current action” (p. 44). Through past experience, experts make sense of a situation perceived by others as unique. They have built up a repertoire of examples, images, and understandings upon which they can act. This appears to parallel to both Benner’s “paradigm cases” and Scribner’s “repertoire of solution modes”.

Schmidt, Norman, and Boshuizen (1990) have developed a four-stage model based on medicine that attempts to deal with the problem of how learning from experience occurs as an individual moves from novice to expert. They attempt to answer at least in part the criticisms raised against Benner by Eraut. The first two stages of the model are reached during training, implying the need for clinical or apprenticeship practicums. Stage one involves the development of richly elaborated causal networks which medical students can use to explain causes or consequences of disease in terms of underlying pathophysiological processes. This knowledge is usually derived from books and lectures. Stage two involves the transformation of these elaborated causal networks into abridged higher-level causal networks. Stage two individuals have the ability to select only required critical information and interrelate its details. For example, a stage 1 practitioner might consider “shock” as rigidly divided into one of five categories (cardiogenic, hypovolemic,



anaphylactic, neurogenic, and septic shock) each with accompanying signs and symptoms, while the stage two practitioner may view “shock” in terms of its respiratory and cardio-vascular consequences. Stage two practitioners have increased conceptual sophistication and are able to incorporate the central theories of their discipline.

In stage three medical practitioners, a particular kind of cognitive template called an “illness script” is developed. The important feature of the “illness script” is the serial structure that it possesses. The order is not causal. In other words it does not adhere to pathophysiological classification schemes or taxonomies. When thinking about a particular condition, typical thought patterns would first include the enabling conditions such as predisposing factors like genetics and past medical history, as well as, boundary conditions like age, weight, and gender. Second would be an examination of the differential diagnoses (possible alternative causes that must be ruled out). Third would be an evaluation of current and potential etiologies or consequences. The fourth cognitive step would involve consideration of treatment and consultation. Illness scripts are interesting because the pattern of cognitive organization is externally manifested in physician-to-physician letters, nurse-to-nurse verbal reports, in radio reports from ambulances to hospitals, and in written documentation of medical records. While illness scripts bear only superficial resemblance to medical textbooks in terms of the method of information presentation, less experienced medical personnel recall



information more readily when it is presented to them in the form of a script (Eraut, 1994, p. 132).

The fourth stage of development is characterized by the use of memories stored from previous experience. Two things are worthy of note. First in contrast and perhaps as a counter balance to illness scripts, case memories (Benner would call them paradigm cases) are retained as individual entities rather than merged into some prototypical categorization. Secondly, there is evidence to suggest that the development of illness scripts must occur before recollections of prior patients can become a reliable and accessible form of knowledge (Eraut, p.134).

Overall, Schmidt, Norman, and Boshuizen's work (1990) appears to confirm the intuitive nature of expertise but it does not suggest that it is error free. Heavy dependence on memory suggests that it is the most memorable hypotheses that are most likely to be identified as the source of the problem and not the most probable ones. Their research suggests that the most prevalent cause of incorrect diagnosis in physicians was "a failure to generate and consider the relevant diagnostic hypothesis" (Eraut, 1994, p. 139). Expert clinicians try and overcome this problem by deliberately constructing alternatives to those immediately suggested by the problem (the examination of differential diagnoses).

The work of Benner (1984), Eraut (1994), Schmidt, Norman, and Boshuizen (1990), Schon (1987), and Scribner (1986) provide powerful evidence (at least for medical and allied health professions) that a sequence of



progression lies between novice and expert with competent situated somewhere in between. But is this scope and sequence invariant or can individuals jump past stages? Furthermore, can a model successfully interpret and predict the multifaceted and various aspects of professional endeavour if it is based on a philosophy of reductionism?

### **Postmodernism**

Postmodern scholars (Pinar, et al., 1995; Slattery 1995) contend that traditional approaches to curriculum which espouse the Tylerian rationale and foreground goals, objectives, and standards limit curriculum “text” to a noun when it should be thought of as *currere* or verb. “Rather than working to quantify behaviors to describe their surface interaction or to establish causality, *currere* seeks to describe what the individual subject makes of these behaviors” (Pinar, et al., p. 414). Pinar, Reynolds, Slattery and Taubman hold that curriculum must be deconstructed and understood as historical, political, racial, gender, poststructuralist, autobiographical, aesthetic, theological, and international text. The idea of deconstruction is to examine text (which includes associated structures, verbal and written materials) to find hidden dualisms, expose their power arrangements, and lay bare assumptions so ingrained as to go unnoticed in the individual and society. While it is a contentious field, many postmodern scholars including Slattery (1995) hold that much of what we are and what we do is socially constructed “text”. Postmodernists hold that the grand metanarratives of liberalism and reason born in the “age of enlightenment” are not universal in their truth but are



contextual. They believe that even the biological identity of female and male unnecessarily clouds the issue of the “individual” which is really both feminine and masculine at the same time. Slattery maintains that we must continually deconstruct the very ground we stand on, which cannot be thought of as rock but rather as a kind of shifting sand beneath our feet. He would be careful to point out that the term “deconstruction” is not to be confused with the term destruction. It is rather a taking apart of deeply held views and ideals which are then reconstructed in a manner that reflects a personal philosophy which espouses among other things a proleptic (the confluence of past, present and future as a single entity) eschatology (hope) with ecological sustainability. This construction must then be continually deconstructed and reconstructed in a manner and cycle that might be symbolized by the Yin and Yang.

Postmodernists have trouble with both competency and expertise. The idea of a standard and teaching to a standard requires implicitly that curriculum be thought of as a noun rather than a verb, as unchanging rather than changing, as closed to reflection rather than open to reflection. The very standards that allow the definition of competency delineate a statement of power based on hidden assumptions and inequalities. Socially constructed resistance to change built into the very idea of “standards” limits reflection and prevents deconstruction. The idea that a field of work can be defined in a way that determines it in some permanent fashion is not a palatable one for postmodernists. According to postmodern scholars, competency (as curriculum) must involve more than a reiteration of Tylerian objectives. Pinar,



et al. (1995) maintain that it must deal with a personalized autobiographical world-view. Responding and then reacting appropriately when things go wrong (which by necessity must involve life experience) is and must be integral to any meaning of the term competency.

Poststructural postmodernists like Doll (1993) have gone further by pronouncing as error the assumption that a definitive model of structure exists. To categorize the sequence of novice to expert as Benner (1984) has done is really to present a discourse that constructs the very reality it seeks to find. Rather than reflecting a pre-existing reality, it shapes and constructs one. The idea of “competence” is a social construction, which upon deconstruction will yield the dualisms of power relationships. Furthermore, postmodernists would argue that it is not valid to assume that language transparently reflects the essence of a structure it seeks to describe. Pinar, et al. (1995) state “Any appeal, then, to the unities, totalities, origins, metanarratives, and first principles is regarded by poststructuralism as a discursive strategy used to legitimate and perhaps disguise the exercise of power” (p. 464). The “modern” idea of the expert is one of having attained the pinnacle of success. But in the postmodern view, interconnectedness and ecological sustainability count for more than domain specific “expertise” (Bowers, 1993; Slattery, 1995).



## Literature Conclusions

Experts appear to have several characteristics in common. They appear to be quicker, more thorough, and more concise in their thinking. This is not due to following sequences of rules faster; rather, it is due to jumping past rules based on a knowledge of what is needed to get the job done. Experts use intuitive thought with (apparent) reliance on mental templates constructed of individualized, situationally specific experiences to guide their decision-making. Experts are able to transform past experiences into immediate action, and if given time, able to reflect and deliberate upon experience to develop new methods of analytical and intuitive thought in ways which non-experts cannot.

It is also clear that novices cannot proceed directly to the expert level. While postmodernists will argue the issue of invariance, many studies suggest there are stages that individuals must pass through. The competence-based movement is predicated on the premise that a “competent” stage does indeed fall between novice and expert stages, and that despite the controversy over the teaching of tacit knowledge to experts, competency can and is being taught. The essential difference between competency and expertise appears to involve the use of memory derived from experience and the ability to reflect and act on that experience.

Postmodernists will point out that “experts” can be racist, homophobic, classist, sexist, ecologically destructive, or socially unstable. They can be ignorant of spirituality, ethics, aesthetics, and the politics in which they find



themselves immersed. Educators who seek the establishment of expertise as an exclusive focus are caught in a “modernist” mindset that fails to take these critical issues into account. Postmodern scholars believe educators must concentrate not on a restricted static curriculum, but on a dynamic, multi-perspective text that includes Slattery’s (1995) proleptic eschatology and ecological sustainability, Bower’s (1993) interconnectedness and cultural changes, Pinar and Grumet’s autobiographical process, Doll’s (1993) hermeneutical poststructuralism and Lather’s (1991) feminist perspective.

Nevertheless, few would argue that many or most aspects of work (especially technical work) must be compared to some type of standard whether it is normative based or criterion referenced. And it is through this comparison that judgment of adequacy is based. The definition of competency as “the human ability to do a unit of work as compared to a standard” appears to be acceptable and reasonable with respect to the literature.

Interestingly, postmodern objections to “standard comparison” (such as outlined above) may yield insight into the complex problem of professional or technical obsolescence. For it has already been pointed out by Knox (1979) that the concept of what is considered “best practice” may change, and competency accepted a decade ago might no longer be considered competency today. More importantly, postmodernist objections to traditionalism may legitimate competency related inquiry into the nature of new and developing professions. This could benefit prehospital care.



Similarly, the literature appears to demonstrate that continuing education alone is not sufficient to ensure competence. Given the purview of professional associations to certify and recredential members, the maintenance of competence is an important aspect of professionalism. Yet, it is one upon which there is scanty literature and scanty experimental evidence. Clearly work needs to be done on the nature of competence and factors involved in its decay.



## CHAPTER THREE

### Methodology

#### Introduction

This study is a retrospective, primarily qualitative, instrumental case study derived from the Alberta College of Paramedics (ACP) Conduct and Competency hearings open to the public. ACP has the legislated obligation to investigate and deal with any complaint issued against any ACP member. All complaints are examined through a preliminary investigation. If after the preliminary investigation the complaint is deemed to have merit, a formal hearing will occur. The hearing is attended by an attorney under the employ of ACP, a panel of three to six “peers” who hold the power to impose disciplinary action, and in most cases the member and an attorney who represents the member. In the hearings, witnesses and experts maybe called. Documentation with varying detail is kept regarding the proceedings.

#### Case Study as a Form of Qualitative Research

One of the main characteristics of qualitative research is its focus on the study of specific instances of a phenomenon with the goal of interpretation (Gall, Borg & Gall, 1996). Case study research is unique from other types of qualitative research in that the primary aim lies in understanding the particulars and peculiarities of a case. Its focus is bounded by the understanding of the case. As Stake (1995) points out, sometimes a case is studied, not to shed light on a particular problem or in order to answer a research question, but because there is an intrinsic desire within the



researcher to learn something about the case. And sometimes the researcher studies a case to gain insight into a preconceived research problem. In the latter instance the case study is instrumental in understanding something else beside the case. Nevertheless the case must be understood first. In case study research both intrinsic and instrumental elements may come into play. In other words a methodology (interest in a particular case) may cause the researcher to seek out a “research problem”. This differs from traditional quantitative research where posing the “research question” precedes the methodology of determining the “answer”. As Stake (1995) points out “The case is an integrated system. The parts do not have to be working well, the purposes may be irrational, but it is a system. Thus people and programs clearly are prospective cases.” (p. 2).

### Research Design

#### Origin of the Research Idea

In reference to Case Study research Gall et al. (1996) state, “Many qualitative researchers subscribe to this approach and use it as a guide to their investigations” (p. 543). This study originated with the researcher taking an interest in a body of data collected over ten years by the ACP Conduct and Competency Committee. Given that the data fits nicely into a single case, it made sense to pursue Case Study as the avenue for the research. In one sense, the study of the case is intrinsic because the data is what prompted the research. However, because the case is studied to cast light upon a research problem which is not bound by the case, it is also instrumental.



### The Premise of Triangulation

This research was designed to employ both qualitative and quantitative approaches. Both Creswell (1994) and Krathwohl (1998) purport the advantages of combining methods to provide a full and credible picture of a phenomenon. Stake (1995) stresses that Case Study research should aspire to the same avowed standards for validation, as do quantitative researchers in the validation of test score measurements. This must be done in order to "... gain the needed confirmation, to increase credence in the interpretation, to demonstrate commonality of an assertion..." (Stake, p. 112). This researcher attempted to achieve triangulation by examining the case from more than one perspective as can be seen in Chapter 4.

### Defining the Case

In this case study, the case is defined by all of the conduct and competency documentation received from the sole participant, ACP, over the course of its history and as it relates to competency hearings. The competency hearing documentation was examined from the first hearing held in 1989 to the end of 1999.

### The Unit of Analysis

The "unit of analysis" is the documentation received from each individual hearing. All hearing records involving ACP members who have been judged by their peers as having been in breech of ACP rules and regulations were examined. Members found guilty in a competency hearing have had their registration suspended either temporarily or permanently,



received fines up to \$5000.00, and been required to attend education or training courses to overcome perceived deficiencies. Given that these members have been judged by their peers to be less than competent in some aspect of the profession of prehospital care, an examination of their documented history as listed in the hearings should yield important insight into the factors required for the maintenance of competence.

### Review of the Research Question

- 1) What are the factors that need to be considered in maintaining competency in Alberta College of Paramedics registered members?

### Assumptions

- 1) All ACP members who have passed the Alberta Registration Examination were competent the day they passed the examination.
- 2) The ACP "Core Competency" document, and the "Alberta Competency Profile" for prehospital care accurately and exclusively list the competency requirements for registered ACP members in Alberta.
- 3) The ACP Conduct and Competency Panel correctly judged the competency of the member

### Delimitations

- 1) This study will not attempt to produce a model for ensuring continuing education or continuing competency though it will make suggestions relevant to the future creation of such models.
- 2) Even though some registered ACP members work outside the province and outside the country, the study will be restricted to registered ambulance



attendants residing and working within the province of Alberta. None of the competency hearings made available to the researcher pertained to infractions that occurred outside of Alberta.

### Limitations

1) The researcher and author is a registered working EMT-P, a member of ACP, a member of the Paramedic Association of Canada, a member of the committee struck to develop the Alberta Competency Profile, and the head instructor for a University College that teaches EMT-Ps and EMRs in Alberta, therefore, a certain level of bias must exist.

### Ethical Considerations

This study passed an ethical review by the University of Alberta at the proposal stage. Written permission to review documentation was received from the Alberta College of Paramedics (refer to Appendix D). Care was taken in the study that confidentiality was not breached. ACP office staff made duplicates of hearing documentation and either they or others altered the names of individuals contained within so that they were illegible. Once done, the researcher examined the documentation. Therefore, documentation pertaining to the hearings does not reveal the names of the individuals involved, the names of the services they work for, or the specific dates on which the incidents occurred.

### Pilot Study

Since the researcher did not sit on the ACP Conduct and Competency Committee, and had not attended a hearing he was unclear as to the amount



and type of documentation available for each hearing. A pilot study was done of three hearings pulled at random from the files.

Preliminary Pilot Study Observations.

Upon examination of the three hearings involved in the pilot study (numbered 1,2,3) the following observations were made.

1. The name of the member under investigation was either removed or rendered illegible.
2. The three files had 8, 10, 12 pages respectively including a cover page which listed the members of the ACP board, the legal counsel for ACP and the legal counsel for the member.
3. All three files listed the complaint and the general circumstances surrounding the complaint.
4. There then followed a discussion on the decision and reasons for each hearing.
5. Demographic information was inconsistently presented, though some could be deduced from the text of each hearing.
6. In Hearing 1 the complaint was dismissed because the EMT-P member was found to be "not guilty". The case was dated from 1991 and much of the discussion in the file referred to specific policies and procedures for "trying" the member. The opinion of "experts" was utilized to make the final decision.
7. Hearing 2 (1993) involved an EMT-P that was caught stealing and then self-administering morphine in a hospital emergency department. There



is some suggestion in the file that drug abuse may have arisen in part because of factors related to the member's role in the Edmonton tornado in 1987. This member had worked continuously in the field since 1977 and as an EMT-P since 1983. He had received the "Star of Courage" from the Governor General in 1984 for off-duty actions at the scene of a house fire and a citation from the Royal Canadian Humane Association awarding him the Bronze Medal for Bravery. The file states, "Indeed, we dare say that but for this incident there are few paramedics who would have achieved the recognition and standing this member has in our professional community." The file also states that numerous witnesses testified to the member's "ability as a paramedic".

8. Hearing 3 (1995) involved an EMT-A who failed to adequately treat a patient involved in a vehicle rollover. The findings state that despite denials to the contrary the member should have taken cervical spinal control measures and transported via a stretcher. With respect to judgment the board states, "We are also satisfied that despite the Member's denials, he knows better and knows that c-spine control and the use of a stretcher were indicated".

#### Pilot Study Analysis and Conclusions.

The member in Hearing 1 was found "not guilty" by the hearing panel, and so for the purposes of this study is deemed to be competent; therefore, this unit of analysis provides minimal information. It is noted in the report that while the member may have suffered a "simple error" that does not necessarily



mean, "lack of skill or judgment". If nothing else this enforces the view that ACP committee is recognizing the more complicated nature of competence and competency. It should be noted that only hearings where members were found guilty were requested for the case study. The question here was, "Should hearings where the member was found "innocent" be ignored and dismissed from the study"? The decision was made that they should be studied as they (1) are readily available; (2) could yield some insight in to the thought processes that lead to the final hearing verdict; (3) demonstrate an understanding within the hearing panel of the complicated nature of competency, and (4) provide evidence for the assumption in this study that those who are found guilty in a hearing are indeed not competent with respect to some aspect of their professional practice.

Hearing 2 yielded information that suggested previous "stressful" experience, which occurred during the Edmonton Tornado, may have led to drug abuse. It is clear from the study that this member's drug problem had been occurring for some time, perhaps years. Nevertheless, many testified to his proficiency as an EMT-P. The question in terms of this research is not just whether or not drug addiction should be considered incompetence but whether inappropriate conduct in general should be considered incompetence. Is conduct related to competency? The literature suggests that the answer is yes. Manuel and Deane (1976) have stated that a competency consists of three components one of which is affective or attitudinal. Therefore, success in the performance of psychomotor skill and/or in the demonstration of



appropriate knowledge do not equate with competence. This unit of analysis seems to suggest that career length and/or previous experience may adversely affect conduct in the form of substance abuse and by default competence as well. Burn out may be a factor here.

Hearing 3 clearly suggested that the member did not initiate appropriate treatment even though he clearly knew (despite his denials to the contrary) that it was indicated. This seems to suggest that the member's assessment skills and knowledge base were not in question, but for some reason he failed to act. As has been pointed out by Knox (1979), lack of an achievement motive is a factor in obsolescence of competency. Examination of the other hearings sought to establish if "knowing what needs to be done but not doing what needs to be done" is a common thread throughout. In any event this unit of analysis demonstrates the need to establish categories to determine patterns and themes common throughout the units of analysis (hearings) within the case.



## The Study Checklists

From the pilot study it became apparent that many of the factors established by Knox (1979) involving the obsolescence of competency in lawyers might also pertain to this study and to prehospital care. A checklist was made of the relevant factors and each hearing was compared with the checklist to identify a possible connection between a factor and a hearing. Some of the factors used by Knox are listed in Checklist 1, which is found in Appendix A.

Two other possible factors were deemed to be important in maintaining competency in ACP members. One relates to long career length, possibly in the form of "burnout" as a negative factor. The second relates to why a member would choose not to initiate a treatment or procedure that he knew was indicated and which he most likely could easily perform. After some thought it was determined that the first factor would be added to Checklist 1 and the second was already contained within "Lack of an Achievement Motive".

Early on in this study it became apparent that a second checklist could be used based on the conclusions and verdicts of the individual hearing boards. Checklist 2 relies on categories established by the researcher based on the establishment of problem areas determined by the hearing boards. The problem areas and their definitions are listed below.



### Category Definitions.

*Alcohol Abuse:* The member abused alcohol.

*Drug Abuse:* This includes member abuse of either prescription, nonprescription, or “recreational” drugs.

*Procedure Problems:* The member fails to competently perform a medical procedure.

*Assault:* The member verbally or physically abused either a patient in his care or a member of the professional association. (This does not include sexual assault.)

*Sexual Harassment:* The member made inappropriate sexual comments or sexually assaulted either a fellow co-worker or member of the public.

*Failure to Respond:* The member while on duty did not respond to an emergency or failed to ensure that an ambulance unit responded to an emergency.

*Scope of Practice Issues:* The member exceeded the scope of practice legislated for the member’s level of training.

*Theft:* The member stole merchandise or money.

### The Study - Triangulation

The material in the case was examined and studied in three different ways. Checklist 1 (Appendix A) was used to examine each hearing for a list of relevant factors. In this sense, Checklist 1 was prospective. It sought information from the data based on prearranged statements that were



determined to be either true or false only after having studied the data. Checklist 2 (Appendix A) was used to sort all of the data in the case into categories that naturally came out of the case study. In this sense Checklist 2 was retrospective as it was formulated only after having examined the data at least two times (once to formulate the list and once to classify the data). And finally, whereas the previous two methods were qualitative, the third method was quantitative. It relied on acquiring public domain ACP registration information separate from the case (see Table 2 in Chapter 4) in order to establish quantitative estimates of “practitioner work years”. This was then be used to compare the “problem areas” established in Checklist 2 from one practitioner level to another (see Table 3).



## CHAPTER FOUR

### Findings, Results and Discussion

#### The Documentation

This study relied on 574 pages of documentation received from the ACP office and covered hearings from the inception of APPA in 1989 until the end of 1999. This included 53 hearings of which six hearings recorded "Not Guilty" verdicts. The 47 hearings in which "Guilty" verdicts were rendered consisted of 544 pages of documentation. The documentation in the 47 hearings ranged from 3 to 35 pages per hearing with a mean of 11.6 pages per hearing. Four of the 47 hearings involved two practitioners being convicted. Hearing 8 and 40 involved two EMT-Ps. Hearing 28 involved an EMT and an EMR who was also an RN. And Hearing 31 involved two EMRs. In the 47 hearings, the total number of individuals found guilty was 51.

#### Summary of Problem Areas

Table 1 refers to the number of EMRs, EMTs and EMT-Ps who were found incompetent because of an outcome verdict categorized into one of the defined problem areas. Alcohol abuse pertains to practitioners who were drinking on duty. None of these involved driving. Drug abuse pertains to both prescription and non-prescription drug abuse including narcotics. In two separate hearings, morphine that was supposed to be given to patients for pain control was presumably self-administered by the EMT-P to accommodate an addiction. Failure to Respond involves practitioners that did not answer the call for an ambulance or medical treatment. In one of these hearings



(involving two EMT-Ps) a supervisor did attend to the call. In another hearing a Licensed Practical Nurse was put in charge of the patient, and in another call the supervisor erroneously deemed an ambulance response to be unwarranted. Assault involves two hearings of physical assault to patients and one hearing of verbal assault to the Registrar of ACP. Procedure Problem involves inability to perform a psychomotor skill. Scopes of Practice issues involve licensure infractions. The documentation involving the Sexual Harassment verdicts did not elaborate as to the degree of infraction. From the documentation it appears that at least one hearing involved "sexual contact" and of a total of five hearings, two may have involved patients. Three hearings involved co-workers. Theft involved one hearing where an EMT stole from a patient and one hearing where an EMT stole from his employer.



**Table 1****Numbers of Individuals Found Guilty in ACP Hearings**

Problem Areas	EMR	EMT	EMT-P	Totals
Alcohol Abuse	1	0	1	2
Drug Abuse	0	4	3	7
Procedure Problems	4	5	2	11
Assault	0	0	3	3
Sexual Harassment	0	4	1	5
Failure to Respond	0	2	2	4
Scope of Practice Issues	3	10	5	18
Theft	0	2	0	2
<i>Totals</i>	8	27	17	52

Note. The EMR practitioner in Hearing 24 is listed twice, once under "Alcohol Abuse" and once under "Scope of Practice Issues". The EMT practitioner in Hearing 53 is listed twice, once under "Procedure Problems" and once under "Sexual Harassment". Four Hearings (8, 20, 28,31) have two practitioners. However, the EMR/RN from Hearing 28 is not listed here.

In order to make quantitative comparisons between EMRs, EMTs, and EMT-Ps with respect to the problem areas listed, the number of yearly



registered members was obtained from the Alberta College of Paramedics and is displayed in Table 2.

**Table 2**

**Numbers of Registered Members Per Year**

Level	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
EMR	0	0	0	199	507	784	1089	1201	1158	1101
EMT	971	1140	1297	1427	1567	1653	1667	1747	1911	2102
EMT-P	442	463	479	510	545	585	622	661	696	771

Note. Table 2 includes data obtained from the Registrar of the Alberta College of Paramedics. It lists the numbers of paramedics registered in Alberta from 1990 (the first year in which data is available) to the year 1999.

Table 2 can be misleading because most practitioners in Alberta are registered for more than one year. However, if all of the EMRs are added together then a total of EMR Work Years can be obtained. These can then be compared to EMT Work Years and EMT-P Work Years. These totals can then be divided by the number of cases in a problem area to determine the number of Practitioner Work Years required for such an incident to occur. These calculations are listed in Table 3.

The purpose of listing work hours per incident is not to imply that there is predictive value in stating that the next incident will occur in a specified time



frame. Rather it is to compare the rates of incidents with respect to the different levels of practitioner. As Stake (1995) states, "The real business of case study is particularization, not generalization" (p. 8).

**Table 3**

**Practitioner Work Years Required for Problem Area Incident to Occur**

Problem Area	Practitioner Work Years		
	EMR Work Years	EMT Work Years	EMT-P Work Years
Alcohol Abuse	6039	No Incident	5774
Drug Abuse	No Incident	3871	1925
Failure to Respond	No Incident	7741	2887
Assault	No Incident	No Incident	1925
Procedure Problem	1510	3096	2887
Scope of Practice	2013	1548	1155
Sexual Harassment	No Incident	3871	5774
Theft	No Incident	7741	No Incident
<i>Total Work Years</i>	<i>6039</i>	<i>15482</i>	<i>5774</i>

Note. "No Incident" means no practitioners were found guilty in that category so the Practitioner Work Years would approach infinity for the group.

Table 3 provides some interesting information. For example, the Total Practitioner Work Years for EMT-Ps over the ten-year period of the case is 5,774, while the total Practitioner Work Years for EMTs is 15,482 (see the



bottom row of Table 3). In other words, an “average” EMT practitioner might be expected to have one competency incident every 15,482 years, while an “average” EMT-P practitioner might be expected to have one incident every 5,774 years. This suggests that EMT-Ps are 2.7 times more likely to have a competency related incident than are EMTs within a given time period. While this by itself may be disconcerting, common sense suggests that it should not be totally unexpected. After all, EMT-Ps have a substantially larger scope of practice and are required to be competent in many more advanced and complicated skills than EMTs. Common sense would suggest that the reason for the increased incidents should be due to procedural kinds of problems. In other words EMT-Ps need to know more so they have the opportunity to forget more.

However, Table 3 does not support this expectation. When looking at “Procedure Problem” as a category it is the EMRs that have the greatest difficulty. The number of Practitioner Work Years expected for an EMR to have a “Procedure Problem” is only 1,510, whereas for EMTs and EMT-Ps, it is 3,096 and 2,887 respectively. Table 3 tells us that even though EMT-Ps practice more complex skills, they do not err any more than EMTs in the performance of procedures. In fact, EMRs who perform the fewest and simplest procedures are twice as likely to perform procedures incorrectly as either EMTs or EMT-Ps.

With respect to the “Scope of Practice” and “Failure to Respond” categories, Table 3 suggests that EMT-Ps are more likely than either EMRs or



EMTs to be involved in competency incidents. Both of these categories contain obvious cognitive and affective skill sets. It is interesting to note that EMRs have the smallest scope of practice and are the least likely to have a competency incident related to exceeding their scope of practice. While paramedics who have the most extensive scope of practice are most likely to exceed their scope of practice.

Another surprise comes when looking at problem areas that have the affective or attitudinal domain of competency as being the chief determinant of the competency. For example, drug abuse, alcohol abuse, sexual harassment, patient assault and theft are clear examples of problem areas where the affective component of the competency is deficient.

Table 4 demonstrates the relationship between problem areas containing primarily the affective domain and practitioner skill level. It shows the number of competency incidents involving drug abuse, alcohol abuse, sexual harassment, patient assault and theft for each level of practitioner and lists them in the row labelled “affective incidents”. The second row then shows the amount of Practitioner Work Years per affective incident. Table 4 shows that an EMT-P is twice as likely to have a competency incident related to the affective domain as is an EMT and eight times as likely as an EMR. The idea that higher-level practitioners have a substantially greater incidence of attitudinal problems is an unexpected finding of this study.



**Table 4****Relationship of Affective Incidents to Practitioner Work Years**

Category	EMR	EMT	EMT-P
Affective Incidents	1	10	8
<b>Practitioner Work Years</b>			
Per Affective Incident	6039	1548	722

Note. Affective incidents include drug abuse, alcohol abuse, sexual harassment, patient assault and theft.

**Summary of Individual and Situational Factors**

Table five follows from Checklist 1 (listed in Appendix A). It demonstrates two important points. First, it shows the frequency of occurrence of a factor in the case study. Second, it shows that “individual based factors” affecting competency are a more common finding than are “situational based factors”.

Of the individual factors, “ethics” and “failure to respect the professional association” are by far the most common occurring in 23 of 47 hearings and 21 of 47 hearings respectively. Situations in which ethics is a factor include exceeding scope of practice, alcohol abuse, drug abuse, failure to respond, patient assault, sexual harassment, theft and failing to do something that the practitioner knew he or she should do. Failure to respect the professional association includes matters such as failure to maintain registration, verbally



abusing the registrar, exceeding the scope of practice and failing to cooperate with professional investigations.

Of the situational factors “Organization of the Employer” was found to be relevant in 10 of 47 hearings. This includes things like the politics of employee-employer relationships, excessively long shifts with few days off, a history of tolerance to inappropriate sexual comments in the workplace, failure to provide continuing education for employees, employment of registered nurses in the role of EMT-Ps when the nurses lack certain necessary skills such as intubation, the utilization of two EMRs on an ambulance, incorrect employer advice to the query of an employee, and poor wages resulting in financial hardship.



**Table 5****Number of Hearings in Which a Factor is Relevant**

Letter	Individual Factors	Number of Hearings
A	Ethical aspects may affect competency	21
B	Failure to respect the authority of the professional body	20
C	Forgotten previous information that was learned	10
D	Failure to seek appropriate peer advice	8
E	Poor individual problem solving ability	8
F	Lack of an achievement motive	7
G	Not competent due to lack of practice	4
H	Lack of improvement in individual proficiency	2
I	Burnout	2
J	Occupational shift from field to management	0

  

Letter	Situational Factors	
K	Organization of employer	10
L	Competition between professions	3
M	Professional Scope expands too fast for individual	2
N	Profession doesn't encourage individual competency	1
O	Client expectations shift	0
P	Work enrichment that enhances job satisfaction	0
Q	Access to counselling	0



Table 6 breaks down the factors by practitioner level and by numbers of practitioners. Considering that (as per Table 2) EMT-Ps are outnumbered by EMTs 3:1 in most years, a rough comparison can be made. Table 6 provides additional evidence that supports the contention that EMT-Ps have more ethical problems (factor A-see Table 5) than EMTs given the realities of their respective numbers. Factor B suggests that both EMTs and EMT-Ps have problems with respecting the authority of the professional body as compared to other factors. EMTs seem to have a greater problem with "problem solving" than do EMT-Ps as shown in factor E. Furthermore, it suggests that EMT-Ps are most likely to lack an achievement motive and most likely to be involved in issues of employer organization affecting competency (factors F & K). EMRs seem to have the least problem with obtaining peer advice (factor D), but the greatest problem with not being competent due to lack of practice (factor G). While it appears that a practitioner's "forgetting previously learned information" is a relevant factor (C), there does not appear to be any obvious difference in the occurrence of this factor between the practitioner levels.



**Table 6****Numbers of Individuals Influenced by a Factor**

Factor	EMR	EMT	EMT-P	Individual Totals
A	1	11	11	23
B	2	13	6	21
C	4	5	2	11
D	1	5	2	8
E	3	5	1	9
F	2	3	3	8
G	3	1	1	5
H	2	1	0	3
I	0	0	2	2
J	0	0	0	0
K	3	4	5	12
L	1	2	0	3
M	0	1	1	2
N	0	1	0	1
O	0	0	0	0
P	0	0	0	0
Q	0	0	0	0

Note. Use Table five to correlate the factor symbol letter with the factor.



Overall, of the seventeen postulated factors listed in Table 5, thirteen were found to be significant in at least one hearing. Of the four that were not, the following comments can be made. "Client expectations shift" does not seem to be a relevant factor with respect to prehospital care as demonstrated in the Case Study. From the documentation it was not possible to determine if "work enrichment that enhances job satisfaction" or "occupational shift from field to management" were relevant factors or not. Finally, all prehospital care workers have "access to counselling". It is the ease of this that is in question, and this could not be determined from the study.

#### Table Results Summary

Tables 1, 3, and 4 are derived from information obtained from categories that became intuitively obvious to the researcher on the first pass through the case study documentation. In most cases the categories constituted the assessment of guilt by the Hearing Board. Checklist 2 was then developed to accurately classify the data within the case study to an established category on the second and subsequent passes through the data.

Table 2 was obtained separately from the case study documentation and is a matter of record within the Alberta College of Paramedics.

Tables 5 and 6 relied primarily on the work of Knox (1979) to establish factors that would be sought in the case study. Tables 5 and 6 are derived from Checklist 1. It is important to note that Checklist 2 only was developed while the researcher was completing Checklist 1.



Appendix B contains the 53 Hearing summaries and can clarify some of the information in Chapter 4 for the interested reader. Appendix C contains Table 7, which is an audit trail of which factor was found in which hearing.



## CHAPTER FIVE

### Conclusions, Implications and Recommendations

#### Introduction

This research confirms that the public is well served by the Profession.

Over a period of ten years, which encompassed 27,000 practitioner work years, only fifty-one individuals were found guilty of competency related offenses. Nevertheless much can be gleaned from a study of these fifty-one individuals. This chapter presents the conclusions of the Case Study. It states the implications derived from the research and makes recommendations relevant to the design and implementation of a future prehospital care model for continuing competency. Finally it makes suggestions for further research.

#### Restatement of the Research Question

This study was designed to answer the question, "What are the factors that need to be considered in maintaining competency in Alberta College of Paramedics registered members"?

#### Conclusions

1. Consistent with Knox (1979), this study has found the following factors influence the maintenance of competency in registered ambulance attendants within the province of Alberta. The first nine factors are related primarily to the individual. The last four are situational factors.
  - (1) Ethical aspects may affect competency
  - (2) Failure to respect the authority of the professional body
  - (3) Forgotten previous information that was learned



- (4) Failure to seek appropriate peer advice
- (5) Poor individual problem solving ability
- (6) Lack of an achievement motive
- (7) Not competent due to lack of practice
- (8) Lack of improvement in individual proficiency
- (9) Burnout
- (10) Organization of employer
- (11) Competition between professions
- (12) Professional Scope expands too fast for individual
- (13) Profession doesn't encourage individual competency

2. Individual factors are more important than are situational factors in the maintenance of competency among Alberta College of Paramedic members.

3. An individual EMT-P is more likely to be convicted of a conduct and competency offense than either an EMT or EMR.

4. EMT-Ps are twice as likely to have a competency incident related to the affective domain as is an EMT and eight times as likely as an EMR.

5. EMT-Ps are most likely to lack an achievement motive and most likely to be involved in issues of employer organization affecting competency.

6. EMRs seem to have the least problem with obtaining peer advice, but the greatest problem with not being competent due to lack of practice.



7. While “forgetting previously learned information” is a factor in the maintenance of competency, there does not appear to be any obvious difference in the occurrence of this factor between the three practitioner levels.
8. There was minimal evidence of psychomotor skill deterioration in either EMT-Ps or EMTs.

### **Implications**

#### **The Individual Prehospital Care Practitioner**

1. Given that individual factors as a whole are more relevant than situational factors in the maintenance of competency, individual practitioners should expect to be the focus of any program or policy seeking to ensure the maintenance of competency.
2. All practitioners should develop a personal plan for continuing competency. This plan must contain components relevant to the cognitive, psychomotor and affective domain. The affective domain must not be neglected. EMT-Ps in particular must strive for higher ethical standards. The highest level of practitioner should set the “gold” standard for other levels of practitioners in both attitude and ethics. This plan must contain achievable goals, the completion of which could serve to strengthen an “achievement motive” and improve individual proficiency.
3. All practitioners and especially EMT-Ps must be willing to seek out and heed appropriate peer advice. This advice could come from fellow EMT-



Ps, EMTs, registered nurses, physicians, respiratory therapists, fire fighters, etc. Failure to seek advice may be driven by ego or insecurity. This must be overcome.

4. EMRs especially must strive to put in enough time “attending to patients” so as not to become incompetent from lack of practice.

### The Professional Association

1. In keeping with the proposed Health Professions Act, the Alberta College of Paramedics should enforce a provincial plan for the establishment of continuing competency that should be primarily directed towards individual based factors. Certainly any such plan must involve the cognitive domain and this is true for all levels of prehospital care practitioners. ACP currently has yearly continuing education modules based on cognitive knowledge. There is no reason to believe this should not continue. However, it is especially important for EMT-Ps that the plan, at least in part, focus on the affective domain. In keeping with Schon (1987) this could include keeping a “reflective” journal of calls. Such a journal could also be used to track call volume. It is less clear as to what action should be taken with respect to psychomotor skills. This study presents little evidence to suggest that psychomotor skill decay actually occurs in practitioners. In the ten years of the study only one EMT-P was found to be guilty of being unable to perform unspecified psychomotor skills. And nowhere in the case study is there evidence of EMT-Ps being unable to perform the advanced skills of



intubation, intraosseous infusion, or transcutaneous pacing to name a few. Future studies are required to appropriately set guidelines for the minimum number of times a practitioner will have to do a skill within a time period in order to remain competent.

2. The Alberta College of Paramedics should continue its work with related health disciplines to clarify roles and responsibilities with respect to patient care and transportation. Specifically the qualification and capabilities of registered nurses and licensed practical nurses to work in ambulances should be clarified for the membership and the employer. The roles and responsibilities of physicians apart from the ambulance medical director should be clarified when those physicians choose to personally monitor the patient during transport.
3. The Alberta College of Paramedics should strive to establish increased respect among its members.
4. Given the proposed expansions to the scope of practice of prehospital care providers in Alberta, the Alberta College of Paramedics should consider developing a plan for upgrading practitioners to newer and higher levels. This could help alleviate the factor "scope expands too fast for the individual".

### The Employer

1. The "organization of the employer" affects employee competence. EMS employers should be acutely aware of how employee competence may be affected when employers require practitioners to work excessively long



shifts with few days off. There are competency based consequences when employers fail to provide continuing education for employees, employ registered nurses in the role of EMT-Ps (especially when nurses lack certain necessary skills such as intubation), staff two EMRs on an ambulance, provide incorrect employer advice to the query of an employee, tolerate inappropriate sexual comments among employees in the workplace, or pay poor wages resulting in financial hardship.

### The Educational Institutes

1. Traditionally educational institutes have placed their emphasis in the cognitive and psychomotor domain. This research clearly shows that educational institutes will have to put greater resources into teaching the affective domain especially to EMT-Ps.
2. Similarly educational institutes must seek to instil in their students a sense of pride and respect for their professional association.
3. They must encourage practitioners to seek out peer advice
4. Educational institutes must attempt to instil a philosophy of life long learning so continuing competency programs will be accepted.
5. Work will have to be done in conjunction with the Alberta College of Paramedics, employers and government to assist in the development and implementation of continuing education programs.
6. Currently, practicums are not a required part of the education of an EMR. Educational institutes should consider having a clinical component in the



education of EMRs to ensure that they are competent when they have to perform in the field. This would be especially important if two EMRs work together.

### The Government

1. The Alberta Health Professions Act has provided the impetus for the Alberta College of Paramedics to begin the process of monitoring continuing competency. This will be expensive and the Government of Alberta should expect to continue to assist in the implementation of the monitoring process.
2. In Alberta, the large EMS municipal services have excellent "in-house" programs for continuing education. However, the small EMS services in Alberta do not have the financial resources to supply their employees with the same kinds of programs for continuing education. This is especially true in certain rural regions that have traditionally tendered out ambulance contracts in an attempt to save money. Consequently in these services the onus of keeping aware of current changes to appropriate practice and maintaining certification in required credentialing (i.e. CPR, Advanced Cardiac Life Support) is left almost entirely to the individual practitioner. The cost of this is borne by the practitioner as well. In the past the Alberta Government through the department of Alberta Health has at times supplied money to small EMS services to help with the continuing education of their employee-practitioners. This practice should continue



and be expanded beyond the basic level to include advanced life support practitioners such as EMT-Ps.

3. Similarly it is within the power of the provincial government to limit the amount of ambulance on-call time. None of the big EMS services in Alberta require their practitioners to work a full shift and remain on-call until their next shift. Yet this practice is almost universal in rural Alberta where practitioners may be required to respond to an ambulance call 24 hours a day for up to eight days in a row. Practitioners in these services cannot get away from the job. The labour policy regarding on-call requirements should be thoroughly examined.
4. Alberta Health should reconsider the current regulation that allows two EMRs to work together on an ambulance so as to prevent a repeat of the situation that happened in hearing 31 (see Appendix B).

### **Recommendations**

The significance of this study is based on the premise that an effective model of continuing education for the maintenance of competency in prehospital care must be founded upon principles established through research. This study has identified several factors relevant to the maintenance of competency. However as with any study, new research must occur to either refute or corroborate previous conclusions. The following are recommendations for further research and study.

1. This research methodology was case based. It relied on documentation that was not originally designed to answer the kinds of questions posed by



this study. Reviewer interpretation was required, and interpretation is always biased. Future research could be prospective instead of retrospective. A prospective study might include a random selection of experienced EMRs, EMTs, and EMT-Ps who would be run through a series of competency tests to find their areas of weakness. This could be correlated against years of experience, call volume, area of work, etc. in order to answer predetermined research questions in a qualitative manner.

2. This study was generalized in that it sought to discover a host of relevant factors. Future studies could examine each factor in detail. For example, how much experience is required to make an entry-level practitioner competent in a skill? Is a practitioner competent after performing one intubation, ten intubations or fifty intubations?
3. It is well established, and this study also demonstrates that practitioners will forget previously learned information. However this study was inconclusive with respect to the decay of psychomotor skills. Is an advanced airway management skill like intubation something which is prone to decay unless it is practiced a certain number of times in a year, or is it like riding a bicycle where once you achieve mastery you never forget it? The answer to this question will have a profound effect on any continuing education/competency model for psychomotor skill.
4. One of the unexpected conclusions of this study is that EMT-Ps have higher than expected problems with the affective domain when compared to lower level practitioners. Why? Is it because some have never acquired



the appropriate affective skill sets or is it because they have lost the skill sets over time?

### **Summary**

This study has listed several factors relevant to the maintenance of competency in Alberta Ambulance Attendants. It found that the most significant factors were those that could be classified as individual based. This is a significant finding with respect to maintaining competency in the profession of prehospital care for it suggests that continuing education programs designed to maintain competency should be targeted primarily toward the individual. However, this study also strongly suggests that some situational factors should be taken into account. Employer organization and management can have serious implications with respect to employee competency. Any model for continuing competency must strive to incorporate all identifiable factors into its design. A good model and efficient implementation will help to ensure the safety of the public, the competency of the professional membership, and the integrity of the profession.



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**APPENDIX A**  
**Checklists for the Study**



## APPENDIX A

### Checklist One

Hearing Number \_\_\_\_\_

#### Individual Factors

- [ ] Forgotten previous information that was learned
- [ ] Occupational shift from field to management
- [ ] Not competent due to lack of practice
- [ ] Ethical aspects may affect competency
- [ ] Failure to seek appropriate peer advice
- [ ] Lack of improvement in individual proficiency
- [ ] Lack of an achievement motive
- [ ] Poor individual problem solving ability
- [ ] Failure to respect the authority of the professional body
- [ ] Burnout

#### Situational Factors

- [ ] Professional Scope expands too fast for individual
- [ ] Client expectations shift
- [ ] Competition between professions
- [ ] Profession does not encourage Individual to maintain competency
- [ ] Organization of employer includes employee relationship
- [ ] Work enrichment that enhances job satisfaction
- [ ] Access to counselling



## Checklist Two

Hearing Number\_\_\_\_\_

- Alcohol Abuse
- Drug Abuse
- Procedure Problems
- Assault
- Sexual Harassment
- Failure to Respond
- Scope of Practice Issues
- Theft



**APPENDIX B**  
**Hearing Summaries**



## APPENDIX B

### Hearing Summaries

Below is a brief listing of the summaries of the 53 hearings. Note that while the researcher requested documentation related to practitioners that had been found guilty other hearings were included. This was most likely accidental. Nevertheless, every hearing received from ACP was randomly numbered and summarized here.

#### Hearing 1

The EMT-P was found not guilty.

#### Hearing 2

The EMT-P was found guilty of drug theft and abuse. The panel noted it may have been related to the experience of the Edmonton Tornado suggesting possible burnout. The member received praise from the panel for excellence in previous service rendered for the profession.

#### Hearing 3

The EMT failed to treat a patient who was in a vehicle rollover appropriately. No C-spine precautions were taken even though it was appropriate to do so and the member knew that he should do so.

#### Hearing 4

The EMT-P was guilty of unbecoming conduct for “drinking alcohol while on duty”. The board noted in the report that it may have been related to working 24 hours per day for several days at a time



### Hearing 5

In this hearing an EMT erred in using quick look paddles to determine a cardiac rhythm rather than using the appropriate electrodes.

### Hearing 6

A documentation error was allowed to stand even though the EMT practitioner realized the error and could have changed it. In this hearing it is clear that the practitioner knew what he was doing was wrong so lack of knowledge was not a factor.

### Hearing 7

In this hearing the member was found not guilty of all charges.

### Hearing 8

Failure to respond to a call by two EMT-Ps was the problem in this hearing. This occurred while the union was in the midst of launching strike action against the employer. Politics plays a key role. Clearly this happened due to circumstances raised in the political action.

### Hearing 9

In this hearing an EMT-P is found to be abusing drugs, and replacing drugs with benign drugs prior to patient administration. This member was also found to be addicted to both prescription and non-prescription drugs. There was nothing in the document which indicated the reasons for the abuse, however, the report did say that the committee was satisfied that the member could be rehabilitated.



### Hearing 10

In this hearing the member was found not guilty of all charges.

### Hearing 11

In this hearing the EMT involved failed to conduct himself in such a manner as to “encourage and merit the respect of the public”. He made numerous sexual comments to fellow staff members. He also made comments to the effect that females should not be in EMS. In the report the committee stated that the member possessed good technical skills and seemed to be an experienced and “excellent EMT”. With respect to the last statement, it appears to refer to his psychomotor skill.

### Hearing 12

In this hearing the EMR had medically documented psychiatric disorders that lead to a removal of her registration. The committee stated that they were concerned about her basic understanding of medical procedures, her ability to drive while on medications, and her ability to perform simple psychomotor skills like taking a blood pressure.

### Hearing 13

In this hearing an experienced EMT was found to be guilty of drug abuse, and the forgery of prescriptions. The abuse appears to have had its start with the member seeing a physician for medications that would keep him awake during long driving times. The suggestion here was that the member suffered from narcolepsy. However it is clear from the report that this was probably not the case.



### Hearing 14

In this hearing an EMT member was convicted of failing to cooperate with other health care personnel, failing to behave in a way beyond reproach and failing to conduct himself in such a manner so as to encourage and merit the respect to the public and fellow health care workers. In essence he punched in the abdomen (with a closed fist) a patient who was bound to a stretcher. The committee decided that this behaviour was not predictive of future situations.

### Hearing 15

Here an EMT condemned a physician order in front of a patient.

### Hearing 16

The EMT abandoned a patient who was under his care. He put the patient under the care of a bystander who was a licensed practical nurse. The patient did this to render aid to other individuals involved in a motor vehicle accident. It appears that the member did not fully understand his obligations to provide care.

### Hearing 17

The EMT failed to dispatch an ambulance to a patient who had requested an ambulance. He was an experienced EMT who was in a supervisory role. The failure in judgment was attributed to a "high incidence of ambulance abuse" and "miscommunication of facts" among the ambulance personnel.



### Hearing 18

A 52-year-old long time EMT-P had complaints launched against him by his employer as being unfit to practice. The same employer employed him for 22 years prior to the incident. He had never before received any discipline from either his employer or the professional association. It appears the individual lacked the continuing education necessary to allow him to keep up with the changes in the profession.

### Hearing 19

Here an EMT recognized the need to perform a skill (cervical immobilization) but failed to properly do so. There is nothing in the record to suggest a lack of dedication or enthusiasm in the member. In this hearing it seems that the member genuinely did not know the "standard of care".

### Hearing 20

In this hearing two EMT-Ps performed a skill, which probably saved a patient's life, but while they were trained and knowledgeable in the skill they were not certified to perform the skill. They were aware, when they performed the skill, that they would be disciplined. Ethics played a role in the decision of the members.

### Hearing 21

Here, the EMT was convicted with theft of narcotics from the drug cabinet.



### **Hearing 22**

In this hearing the EMT member was accused with being impaired on prescription medications while operating an ambulance in which she was involved in a minor traffic accident. The member refused to cooperate with the investigation and had her registration withdrawn until such time as she decided to cooperate.

### **Hearing 23**

In this hearing the EMT member was accused of theft of ambulance property but failed to cooperate with the investigation. She had her registration withdrawn until she decides to cooperate with the investigation

### **Hearing 24**

The EMR on duty was accused of using alcohol while on duty, during a staff Christmas party she attended while on second call and convicted of monitoring an IV under orders from a physician even though she knew it was out of scope of practice. She failed to cooperate with the investigation and consequently had her registration withdrawn pending future cooperation.

### **Hearing 25**

An EMT responded to a call and stole money from a patient. The member was deemed to be unreliable in his testimony and unremorseful in his attitude.

### **Hearing 26**

An experienced EMR failed to initiate two procedures (cervical immobilization and vital signs).



### **Hearing 27**

An EMT performed two procedures which she was apparently trained to do but which she was not certified to do.

### **Hearing 28**

An inexperienced EMT was convicted of giving IV medications and intubating a cardiac arrest patient. Also an EMR/RN was convicted of coercing and allowing a fellow member to practice in violation of the Health Disciplines Act.

### **Hearing 29**

The EMT was found guilty of using "Entonox" present on the ambulance for his own personal use.

### **Hearing 30**

An EMT-P was found guilty of drug abuse.

### **Hearing 31**

In this hearing two EMRs while at a rodeo failed to provide even the most basic life support measures. They did not take control of the scene. They did not check for breathing. In short the committee stated that they did not initiate "appropriate and immediate life-saving procedures".

### **Hearing 32**

The EMT in this hearing was working as an EMT even though he knowingly allowed his registration to lapse.



### Hearing 33

A member who had successfully completed an EMT-P program but had failed the provincial examination successfully and correctly performed a cricothyrotomy on a trauma patient. Shortly thereafter, the member successfully completed the provincial examination. This is a scope of practice issue because the member would have been an EMT at the time the procedure was performed.

### Hearing 34

An EMT-P "impugned the reputation of the registrar". Apparently this was done by phone calls to the professional association office. This was considered verbal assault for the purposes of the study.

### Hearing 35

The EMT-P received a five-year suspension for five separate instances of sexual harassment to individuals.

### Hearing 36

The EMR performed outside of his scope of practice. He did not realize the procedure was outside of his scope of practice. His employer who was an experienced EMT erroneously advised him that it was in his scope of practice.

### Hearing 37

The EMT failed to realize he was transporting a patient who had a chest tube. This was out of scope for the member. He was aware of the tube but did not realize what it was until he read the patient's chart while on the transfer.



The committee believed that part of the problem was related to the member's lack of confidence.

### Hearing 38

The EMT knowingly worked, as an EMT, even though he knew his registration had not been renewed.

### Hearing 39

The EMT sexually harassed an individual.

### Hearing 40

The EMT-P worked as an EMT-P when he knew that his registration had been cancelled for failing to submit appropriate documentation for renewal.

### Hearing 41

The EMT worked as an EMT when he knew that his registration had been cancelled for failing to submit appropriate documentation for renewal.

### Hearing 42

The experienced EMT-P physically assaulted and verbally abused a patient. In this hearing there was apparently no reason to "prevent this man from working as an EMT-P for a period or forever".

### Hearing 43

The EMT-P worked as an EMT-P when he knew that his registration had been cancelled for failing to submit appropriate documentation for renewal.



### Hearing 44

The EMT worked as an EMT when he knew that his registration had been cancelled for failing to submit appropriate documentation for renewal. In this hearing information in the study clearly indicated the member knew he was in error but believed that he could not afford the payment of the yearly registration fee.

### Hearing 45

The EMR worked as an EMR when he knew that his registration had been cancelled for failing to submit appropriate documentation for renewal.

### Hearing 46

The EMT worked as an EMT when he knew that his registration had been cancelled for failing to submit appropriate documentation for renewal.

### Hearing 47

The EMT made inappropriate sexual advances to three co-workers on separate occasions. Contact of a sexual nature was involved. He was forced to attend a course on sensitivity training.

### Hearing 48

The EMT-P was found guilty for failing to cooperate in the ACP investigation of another EMT-P with whom he works.

### Hearing 49

The member was found not guilty.



### Hearing 50

In this hearing the EMT in question was accused of several things including sexual misconduct on relation to a fellow employee. The committee found the member not guilty on all charges but reprimanded in their concluding statement both the complainant and the member for their inability to “respect one another and work in a productive manner with each other”. They go on to mention immaturity and lack of communication skills as a possible cause. The committee then states, “These members plus all others must heed these words and develop productive ways of dealing with each other in conciliatory professional methods”.

### Hearing 51

The member was found not guilty.

### Hearing 52

An experienced EMT-P recorded a pulse on a PCR without accurately taking the pulse. The committee rejected the excuse that the member stated he had taken pulses so many times that he no longer needed to use a watch.

### Hearing 53

In this hearing the EMT was very experienced but failed in the performance of several procedures. This included an inability to obtain vital signs, inadequate airway control, failure to initiate an IV (due to “rusty skills”), and failure to use an automatic external defibrillator. The EMT also made an inappropriate sexual comment to his female partner while on a call.



**APPENDIX C**  
**Audit Trail Table**



**Table 7**

**Hearings in Which a Factor Occurs**

<b>Factor</b>	<b>Hearing Number in Which the Factor Occurs</b>
A	2 4 6 8 9 11 13 14 20 21 23 24 25 28 29 30 33 35 39 42 47
B	13 15 16 20 22 23 24 27 28 32 33 34 38 40 41 43 44 45 46 48
C	5 8 12 15 16 19 26 31 36 53
D	3 5 14 19 26 28 35 37
E	6 14 16 17 28 31 37 53
F	12 18 31 53
G	3 31 52
H	31 53
I	2 17
J	0
K	4 8 11 18 28 31 36 44 47 52
L	15 24 28
M	18 53
N	16
O	0
P	0



**APPENDIX D**  
**Permission Letter from ACP**





# ALBERTA COLLEGE OF PARAMEDICS

*Formerly Alberta Prehospital Professions Association*

December 2, 1998 *fr*

Mr. Tim Essington  
RR #3  
Wetaskiwin, Alberta

Dear Mr. Essington:

**Re: Conduct & Competency Hearing Records**

The Alberta College of Paramedics agrees to your request to obtain records from the conduct and competency hearings. The names of the individuals will be blotted out or removed. No information or record will be given regarding any pending or unfinished conduct or competency case.

As you mentioned in your letter, the Alberta College of Paramedics does reserve the right to ask for the records back at any time. Duplicate copies will be made of existing records for you to pick up at your leisure.

Sincerely,

ALBERTA COLLEGE OF PARAMEDICS

A handwritten signature in black ink, appearing to read "P. Poirier".

Per: Pierre Poirier  
Chairman









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